

Tuula Aalto

List of Publications by Year in descending order

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Version: 2024-02-01

48
papers

1,296
citations

393982

19
h-index

414034

32
g-index

82
all docs

82
docs citations

82
times ranked

2621
citing authors

#	ARTICLE	IF	CITATIONS
1	Top-down estimates of European CH ₄ and N ₂ O emissions based on four different inverse models. Atmospheric Chemistry and Physics, 2015, 15, 715-736.	1.9	92
2	Early snowmelt significantly enhances boreal springtime carbon uptake. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 11081-11086.	3.3	84
3	Inverse modelling of European CH ₄ emissions during 2006–2012 using different inverse models and reassessed atmospheric observations. Atmospheric Chemistry and Physics, 2018, 18, 901-920.	1.9	77
4	Monthly gridded data product of northern wetland methane emissions based on upscaling eddy covariance observations. Earth System Science Data, 2019, 11, 1263-1289.	3.7	69
5	Methane fluxes in the high northern latitudes for 2005–2013 estimated using a Bayesian atmospheric inversion. Atmospheric Chemistry and Physics, 2017, 17, 3553-3572.	1.9	59
6	Parametrization of two photosynthesis models at the canopy scale in a northern boreal Scots pine forest. Tellus, Series B: Chemical and Physical Meteorology, 2022, 59, 847.	0.8	54
7	Measurement of the ¹³ C isotopic signature of methane emissions from northern European wetlands. Global Biogeochemical Cycles, 2017, 31, 605-623.	1.9	52
8	TransCom N ₂ O model inter-comparison – Part 2: Atmospheric inversion estimates of N ₂ O emissions. Atmospheric Chemistry and Physics, 2014, 14, 6177-6194.	1.9	49
9	Modeling ¹³ C discrimination in tree rings. Global Biogeochemical Cycles, 2000, 14, 213-223.	1.9	45
10	A Three-dimensional Stomatal CO ₂ Exchange Model Including Gaseous Phase and Leaf Mesophyll Separated by Irregular Interface. Journal of Theoretical Biology, 1999, 196, 115-128.	0.8	43
11	Large contribution of boreal upland forest soils to a catchment-scale CH ₄ balance in a wet year. Geophysical Research Letters, 2016, 43, 2946-2953.	1.5	41
12	A recent build-up of atmospheric CO ₂ over Europe. Part 1: observed signals and possible explanations. Tellus, Series B: Chemical and Physical Meteorology, 2022, 62, 1.	0.8	40
13	Global methane emission estimates for 2000–2012 from CarbonTracker Europe-CH ₄ ; v1.0. Geoscientific Model Development, 2017, 10, 1261-1289.	1.3	40
14	Modelling sun-induced fluorescence and photosynthesis with a land surface model at local and regional scales in northern Europe. Biogeosciences, 2017, 14, 1969-1987.	1.3	40
15	Tropospheric CH ₄ signals as observed by NDACC FTIR at globally distributed sites and comparison to GAW surface in situ measurements. Atmospheric Measurement Techniques, 2014, 7, 2337-2360.	1.2	38
16	MODIS time-series-derived indicators for the beginning of the growing season in boreal coniferous forest – A comparison with CO ₂ flux measurements and phenological observations in Finland. Remote Sensing of Environment, 2014, 140, 625-638.	4.6	36
17	Modeled Microbial Dynamics Explain the Apparent Temperature Sensitivity of Wetland Methane Emissions. Global Biogeochemical Cycles, 2020, 34, e2020GB006678.	1.9	34
18	Ecosystem Services Related to Carbon Cycling – Modeling Present and Future Impacts in Boreal Forests. Frontiers in Plant Science, 2019, 10, 343.	1.7	31

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19	Response of water use efficiency to summer drought in a boreal Scots pine forest in Finland. <i>Biogeosciences</i> , 2017, 14, 4409-4422.	1.3	30
20	Is Rafflesia an endothermic flower?. <i>New Phytologist</i> , 2002, 154, 429-437.	3.5	28
21	HIMMELI v1.0: Helsinki Model of Methane build-up and emission for peatlands. <i>Geoscientific Model Development</i> , 2017, 10, 4665-4691.	1.3	24
22	Temperature dependence of leaf-level CO ₂ fixation: revising biochemical coefficients through analysis of leaf three-dimensional structure. <i>New Phytologist</i> , 2005, 166, 205-215.	3.5	21
23	Tropospheric methane in northern Finland: seasonal variations, transport patterns and correlations with other trace gases. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 2007, 59, 251-259.	0.8	19
24	Digital photography for assessing the link between vegetation phenology and CO ₂ exchange in two contrasting northern ecosystems. <i>Geoscientific Instrumentation, Methods and Data Systems</i> , 2016, 5, 417-426.	0.6	18
25	Evaluating Biosphere Model Estimates of the Start of the Vegetation Active Season in Boreal Forests by Satellite Observations. <i>Remote Sensing</i> , 2016, 8, 580.	1.8	17
26	Carbon dioxide exchange of Scots pine shoots as estimated by a biochemical model and cuvette field measurements. <i>Silva Fennica</i> , 1998, 32, .	0.5	17
27	The consolidated European synthesis of CH ₄ and N ₂ O emissions for the European Union and United Kingdom: 1990–2017. <i>Earth System Science Data</i> , 2021, 13, 2307-2362.	3.7	16
28	The Community Inversion Framework v1.0: a unified system for atmospheric inversion studies. <i>Geoscientific Model Development</i> , 2021, 14, 5331-5354.	1.3	15
29	Optimal determination of the parameters controlling biospheric CO ₂ fluxes over Europe using eddy covariance fluxes and satellite NDVI measurements. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 2004, 56, 93-104.	0.8	15
30	Calibrating the sqHIMMELI v1.0 wetland methane emission model with hierarchical modeling and adaptive MCMC. <i>Geoscientific Model Development</i> , 2018, 11, 1199-1228.	1.3	12
31	Sensitivity of 21st century simulated ecosystem indicators to model parameters, prescribed climate drivers, RCP scenarios and forest management actions for two Finnish boreal forest sites. <i>Biogeosciences</i> , 2020, 17, 2681-2700.	1.3	12
32	Comparison of an optimal stomatal regulation model and a biochemical model in explaining CO ₂ exchange in field conditions. <i>Silva Fennica</i> , 2002, 36, .	0.5	12
33	Methane budget estimates in Finland from the CarbonTracker Europe-CH ₄ data assimilation system. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 2022, 71, 1565030.	0.8	11
34	Optimal determination of the parameters controlling biospheric CO ₂ fluxes over Europe using eddy covariance fluxes and satellite NDVI measurements. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 2004, 56, 93-104.	0.8	10
35	Parameter calibration and stomatal conductance formulation comparison for boreal forests with adaptive population importance sampler in the land surface model JSBACH. <i>Geoscientific Model Development</i> , 2019, 12, 4075-4098.	1.3	10
36	Atmospheric transport of carbon dioxide to a baseline monitoring station in northern Finland. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 2022, 57, 366.	0.8	9

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37	Monitoring changes in forestry and seasonal snow using surface albedo during 1982–2016 as an indicator. <i>Biogeosciences</i> , 2019, 16, 223-240.	1.3	8
38	Towards agricultural soil carbon monitoring, reporting, and verification through the Field Observatory Network (FiON). <i>Geoscientific Instrumentation, Methods and Data Systems</i> , 2022, 11, 93-109.	0.6	8
39	Stomatal-scale modelling of the competition between ozone sinks at the air–leaf interface. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 2022, 60, 381.	0.8	6
40	Evaluating two soil carbon models within the global land surface model JSBACH using surface and spaceborne observations of atmospheric CO ₂ . <i>Biogeosciences</i> , 2020, 17, 5721-5743.	1.3	6
41	Retrieval of methane source strengths in Europe using a simple modeling approach to assess the potential of spaceborne lidar observations. <i>Atmospheric Chemistry and Physics</i> , 2014, 14, 2625-2637.	1.9	5
42	Atmospheric transport of carbon dioxide to a baseline monitoring station in northern Finland. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 2005, 57, 366-374.	0.8	5
43	Modelling spatio-temporal soil moisture dynamics in mountain tundra. <i>Hydrological Processes</i> , 2022, 36, .	1.1	5
44	Utilizing Earth Observations of Soil Freeze/Thaw Data and Atmospheric Concentrations to Estimate Cold Season Methane Emissions in the Northern High Latitudes. <i>Remote Sensing</i> , 2021, 13, 5059.	1.8	5
45	Constraining ecosystem model with adaptive Metropolis algorithm using boreal forest site eddy covariance measurements. <i>Nonlinear Processes in Geophysics</i> , 2016, 23, 447-465.	0.6	4
46	Smos Retrievals of Soil Freezing and Thawing and its Applications. , 2018, , .		2
47	SNOWCARBO: Monitoring and assessment of carbon balance related phenomena in Finland and northern Eurasia. , 2011, , .		1
48	The Role of Emission Sources and Atmospheric Sink in the Seasonal Cycle of CH ₄ and ¹³ CH ₄ : Analysis Based on the Atmospheric Chemistry Transport Model TM5. <i>Atmosphere</i> , 2022, 13, 888.	1.0	1